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The Files, Contract RD-76, Schedule "C"

6 November 1958

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Trip Report, Tests of RS-18 Field Equipment

1. A trip was made to St. Louis, Missouri, 31 October 1958 to test the field unit of the RS-18. Present at the St. Louis site were:

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/CT/OR
OC-R/R+D-EP

2. The RS-18 field equipment operated without any malfunctions and the results of the test were highly successful. The site chosen for the testing was located in an open field behind the Sands Motel on the outskirts of St. Louis. Four groups of nine transmissions each were made using various types of antenna systems. See Attachment A for the types of antennas used and the results of the tests. It should be noted that three transmissions were made on Channel 6 (21.775 megacycles) and three transmissions were made on Channel 4 (19.012 megacycles). It was established by telephone that severe interference was encountered on these two channels, and the remainder of the test was made transmitting on Channel 5 (20.365 megacycles). All receptions with the field unit were made on Channel 6 (25.840 megacycles).

3. On the last group of transmissions, the usual nine transmissions were made at five minute intervals and then transmissions were made every two minutes until the battery was completely discharged. A total of 44 transmissions were made from the battery. This greatly exceeded the anticipated 29 transmissions from one battery. This battery had previously been used for nine transmissions from 1800 GMT to 1840 GMT then recharged for 20 minutes and used again for 44 transmissions from 2000 GMT to 2150 GMT.

4. Another significant part of this test was that signals were transmitted successfully using a long wire antenna without a ground plane. Thirty-nine transmissions were made using this antenna and 35 were received. This is an indication that the antenna tuner is doing an excellent job.

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5. During the testing of the RS-18 [REDACTED] went in the motel lobby to check for TVI. The RS-18 was located approximately 100 yards from the motel television antenna. [REDACTED] made his observation during three or four transmissions and observed no indication of TVI. 25X1A9a 25X1A9a

[REDACTED] 25X1A9a

Attachment:
Attachment A

OC-E/R+B-EP/CWS:mjr (6 Nov. 58)
cc: R+D Subject File
Monthly Report
R+D Lab
OC-T
R+D Chrono
EP Chrono

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